Landsat Data Continuity Mission
Mission Operations Element
Industry Day

January 4, 2008

Bill Ochs

LDCM Project Manager

OLI Industry Day Agenda

• Welcome/Introduction	Bill Ochs	9:00
• Landsat Overview	Jim Irons	9:15
• USGS EROS Overview	Mike Headley	9:30
• LDCM Mission, Ops Con and MOE Overview	Steve Coyle	9:45
• RFP Overview	Vicki Dulski	10:05
• Open Q&A	Bill Ochs	10:25
• Break		10:35
• One-on-One Sessions begin		10:45

Welcome/Introduction

Bill Ochs

LDCM Project Manager

Logistics

- **Food**
  - **Morning - breakfast refreshments provided**
  - **Lunch – your on your own**
  - **Afternoon – snacks provided**

- **Copies of presentation not provided**
  - **Presentations will be posted to web site January 7th**

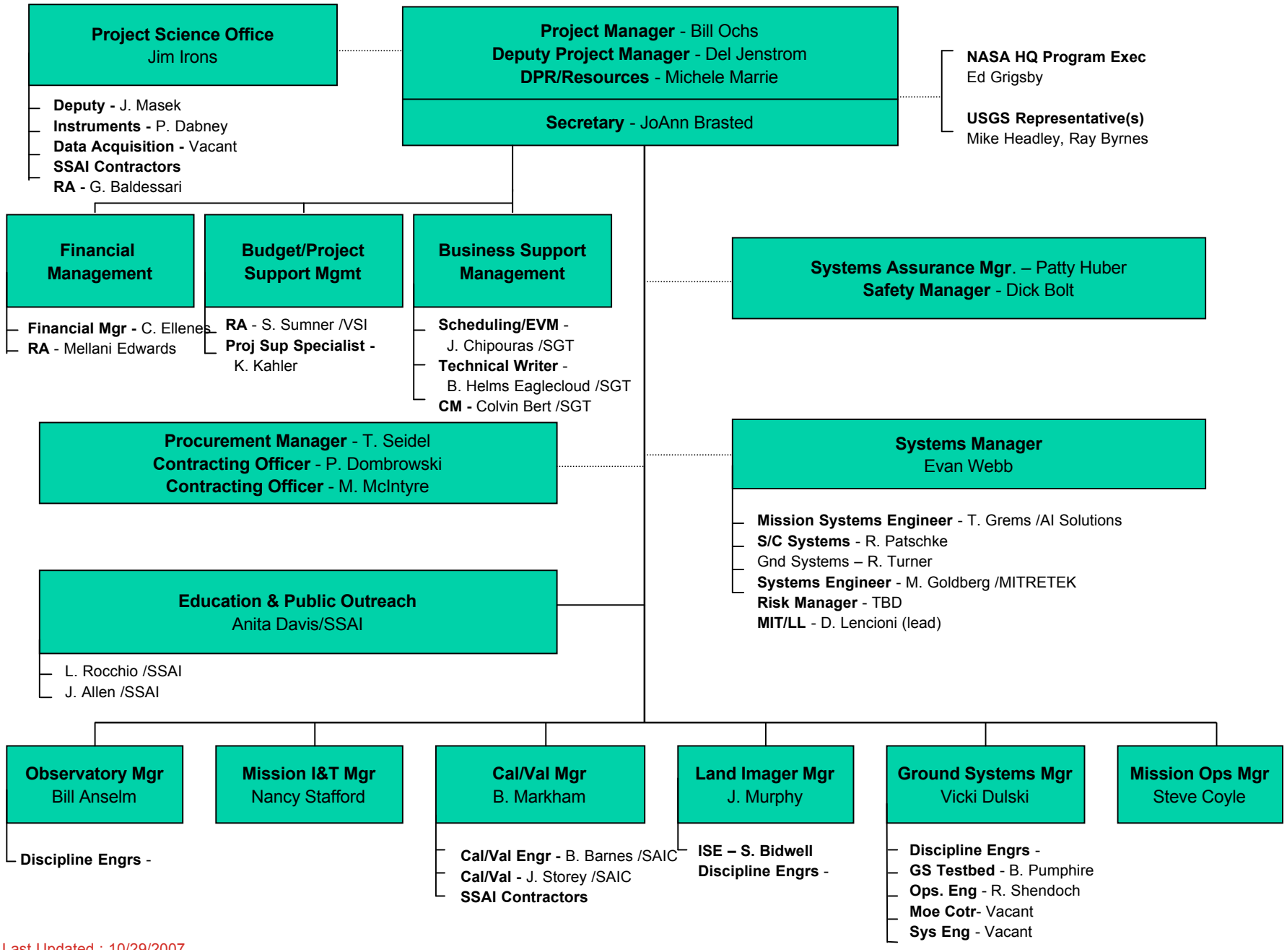
Ground Rules for meeting

- **Information provided today through this meeting or answers provided to questions are not considered official. All information is only considered official when it is contained in the Contracting Officer's release of the Final RFP or releases of the Government's official response to questions received regarding the Final RFP.**

- **Responses to questions that affect the RFP package received during Industry Day and prior to release of Final RFP, will be posted anonymously to the NASA Acquisition Internet Service (NAIS).**

- **Blackout period begins following release of the Final RFP. Any communication should be directed to the Contracting Officer. Questions about the RFP should be submitted in writing to the Contracting Officer. The questions will be answered and be made available through NAIS.**

LANDSAT DATA CONTINUITY MISSION - CODE 427



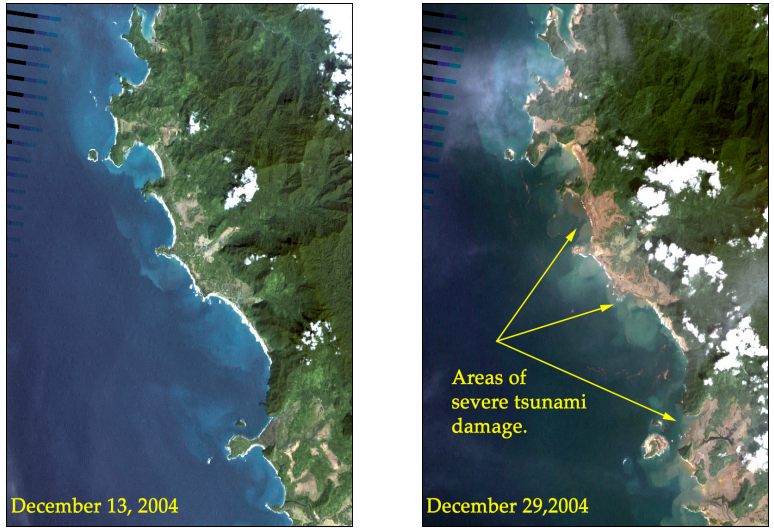
Last Updated : 10/29/2007

LDCM Overview

LDCM

Mission Objectives

- **Provide continuity in the multi-decadal Landsat land surface observations to study, predict, and understand the consequences of land surface dynamics**
  - **Land cover/use change**
  - **Human settlement and population**
  - **Ecosystem dynamics**
  - **Landscape scale carbon stocks**
  - **Resource management/societal needs**



Landsat 7 data used to aid Indonesian government with tsunami relief efforts (David Skole, Michigan State University)

LDCM Data Needed to Address NASA Earth Science Focus Areas, Questions, and Applications

Focus Areas	*Science Questions*
• Carbon Cycle, Ecosystems, & Biogeochemistry	- What are the changes in global land cover and land use, and what are their causes?
• Water & Energy Cycle	- How do ecosystems, land cover & biogeochemical cycle respond to and affect environmental change?
• Earth Surface & Interior	- What are the consequences of land cover and land use change for human societies and the sustainability of ecosystems ? - What are the consequences of increased human activities on coastal regions?

Instrument(s)

- **Multi-spectral imaging sensor - BATC**
- **Thermal Infrared Sensor – TBD**
- **Total Solar Irradiance Sensor - TBD**

Gov't Partners

- **NASA Goddard Space Flight Center**
- **Dept. of Interior's United States Geological Survey (USGS)**

NASA/USGS Partnership

- **NASA and DOI USGS are identified as the Landsat Program Management team under authority of U.S. Code Title 15, Chapter 82, "Land Remote Sensing Policy" and Presidential Decision Directive NSTC-3, "Land Remote Sensing Strategy,"**

- **NASA Responsibilities**
  - **Development of**
    - Space Segment, Launch Segment, and the Mission Operations Element (MOE)
  - **Serve as the system integrator for the entire LDCM and lead the missions systems engineering effort**
  - **Lead Mission Operations through the completion of the on-orbit checkout period**

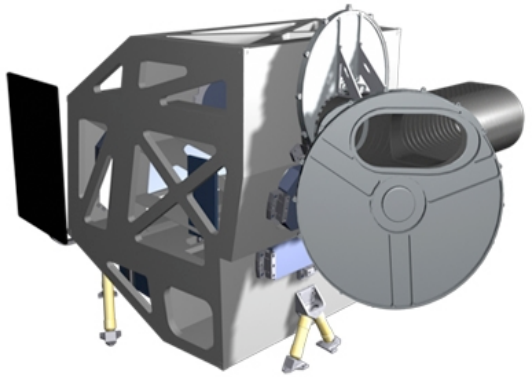
- **USGS Responsibilities**
  - **Development of**
    - Ground System (comprised of the Flight Operations and Data Processing and Archive Segments), excluding procurement of the MOE
  - **LDCM mission operations, after the completion of the on-orbit checkout period**
  - **Accept and execute all responsibilities associated with the transfer of the LDCM Operational Land Imager (OLI) instrument, spacecraft bus and Mission Operations Element contracts from NASA following on-orbit acceptance of the LDCM system including assuming contract management**

Procurement Timeline

Procurement Activity	Completion Date
Industry Day	1/4/08
RFP Release	1/308
Proposals Due	2/29/08 (30 days after RFP release)
Final Evaluation	6/1/08
Award	6/11/08

Project Status

- **Operational Land Imager**
  - **RFP released – Jan. 07**
  - **Contract awarded – July 07**
    - Ball Aerospace and Technology Corporation
    - 39 month development schedule
  - **OLI SRR and IBR have been successfully completed**
  - **Numerous peer reviews conducted**
  - **Optics light-weighting in progress**



- **RSDO Spacecraft**
  - **S/C Accommodation Studies Awarded – May 1st 2007**
    - Ball, General Dynamics, Space Systems Loral, Orbital Sciences Corporation awarded study contracts
    - Studies completion Sept. 30, 2007
  - **Final RSDO RFO released December 7, 2007**
  - **Proposals due February 6, 2008**
  - **Contract award in early Spring 2008 timeframe**

- **Ground System**
  - **Successful GS SRR conducted – Sept. 26-27**

- **Launch Vehicle**
  - **Atlas V selected in Sept.**